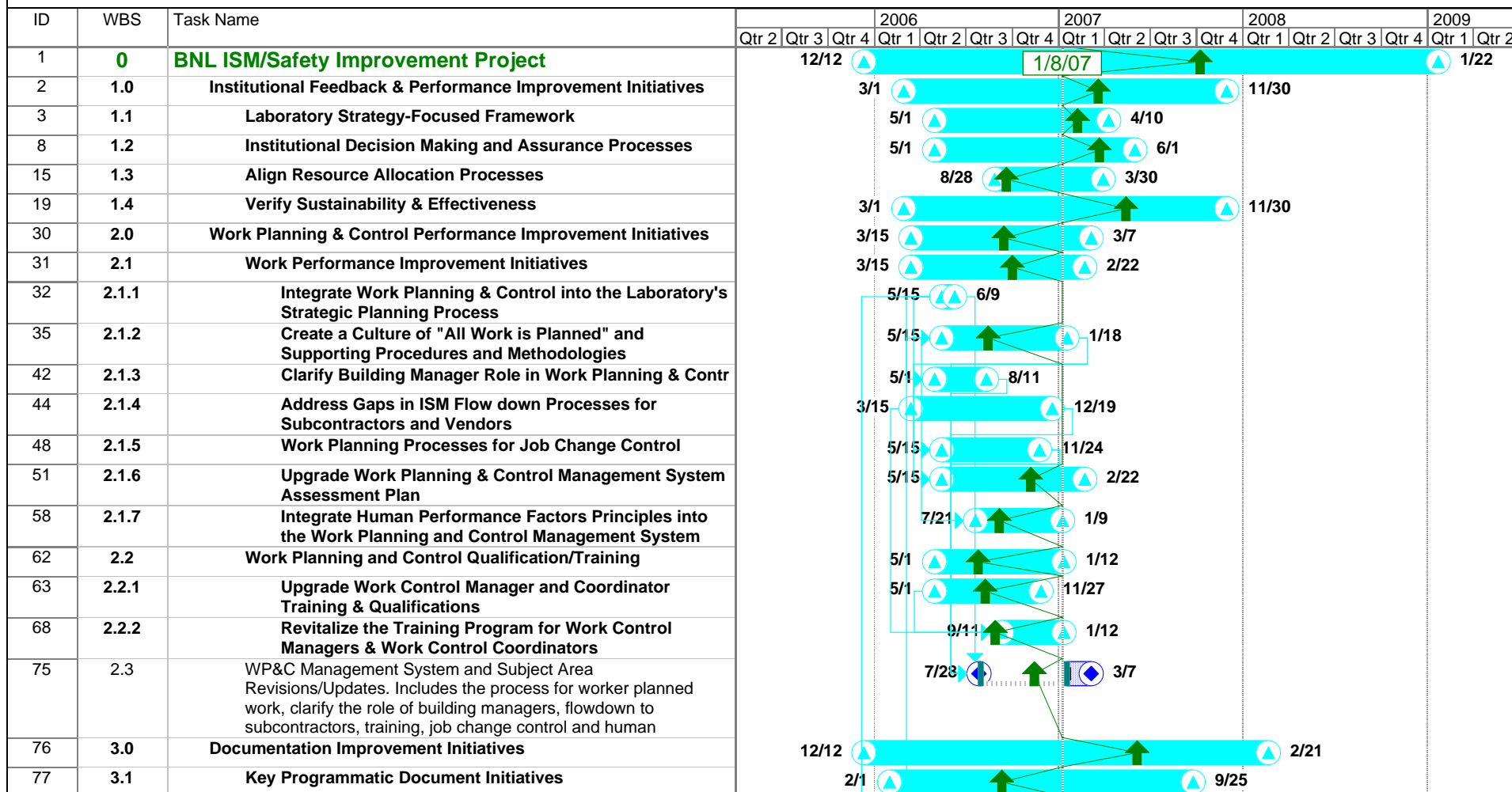


ISM/Safety Improvement Project Review #4

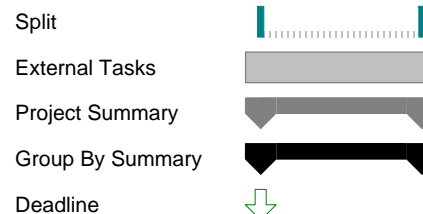
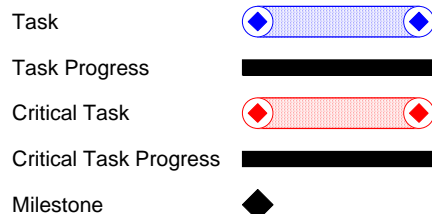
Status Period: 09/29/06 – 12/31/2006

<http://www.bnl.gov/qmo/ISM.asp>

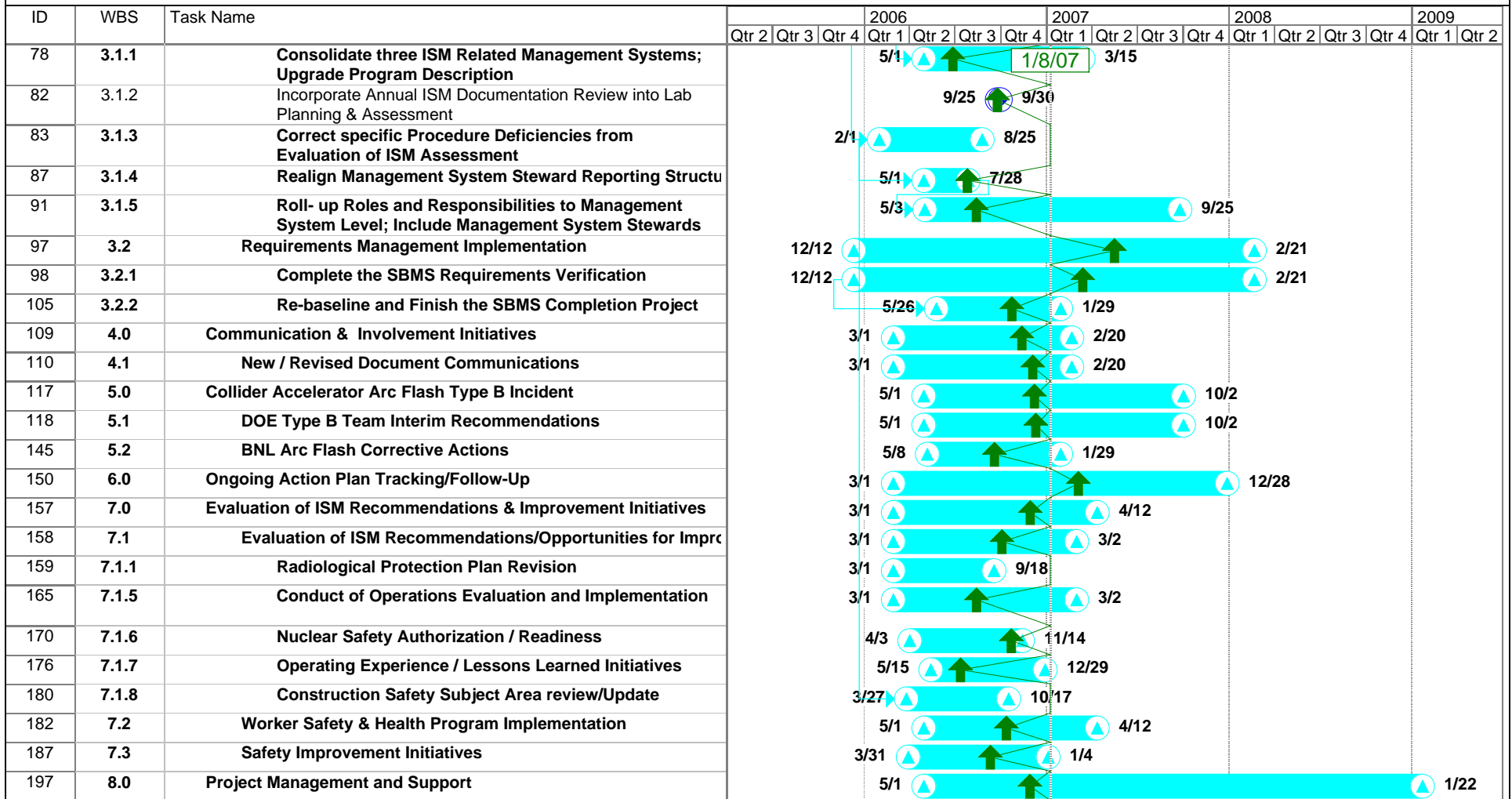
BNL ISM/Safety Improvement Project Plan (ATS# 2944)



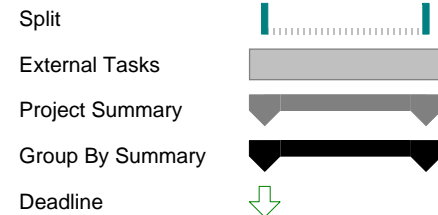
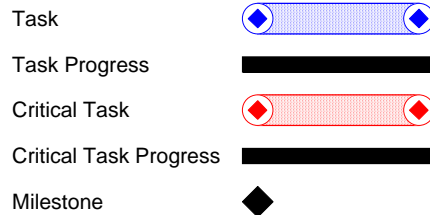
Project: Safety Improvement Schedule
Date: Mon 1/8/07



BNL ISM/Safety Improvement Project Plan (ATS# 2944)



Project: Safety Improvement Schedule
Date: Mon 1/8/07



ISM/Safety Improvement Project Overview

- Project is 62% complete (47% @ last review August 31st)
- Major Activities Implemented/Completed
 - Developed & Published Integrated Planning & Performance Management/Assurance Calendar
 - Event/Issues Management Processes
 - Barrier Analysis & Five Whys Causal Analysis workshops
 - Upgrade/Retool of the Assessment Tracking System (ATS)
 - Workshops ISM Flowdown to contractors & suppliers
 - Work Planning & Control Subject Area Changes/Revisions

ISM/Safety Improvement Project Overview

- Major Activities Completed (Cont'd)
 - Operations Forum Evaluation/Implementation
 - Arc Flash Type B Corrective Action Plan (ATS #3474)
 - Lessons Learned developed & shared with the DOE Complex
 - Development of Field Validation Criteria (10CFR851)
 - Nuclear Materials Internal Assessment of Exemptions/Exceptions
 - Natural Phenomena Hazard (NPH) Design Document
 - ISM/Safety Improvement Project Follow-up Review (McCallum-Turner, Inc)

Brookhaven National Laboratory

ISM/Safety Improvement Project Review Meeting

WBS 1.0 Institutional Feedback and Performance Improvement Initiatives

Pat Looney
December 21, 2006



WBS 1.0 Institutional Feedback and Performance Improvement Initiatives

Summary Status –  Scope  Cost  Schedule

- Good progress being made. ALP development, transition to SFA reporting, and investment in PerformanceSoft are key successes.
- Clear signs of acceptance indicate good potential for sustainability
- Improved business planning processes, particularly at the organizational level will be a significant undertaking. The objectives and approach currently lack clarity. Consensus among senior management has not yet been established. We will likely stumble unless there is substantial institutional will for its success.
- Interfaces for flow of performance information, particularly between the organizational units and the institutional need to further consideration and clarification.
- The FY 07 Continuing Resolution will likely impact our ability to fully execute some tasks as scheduled.
- Project status review conducted by McCallum and Brog confirmed path is on target. Concerns expressed about that the pace of progress may be too slow. Pace is impacted by resource limitations and the need for controlled and deliberate implementation.

WBS 1.1 Laboratory Strategy Focused Framework

Activity Status –  Scope  Cost  Schedule

■ Progress/Description of Work Completed

- ALP published
- Realignment of quarterly reporting along SFA's expected first quarter FY07.
- Pilot management symposia deployed in the DD0s line has received favorable feedback from participants. That approach may be beneficial to other managerial populations.

■ Emerging Risks/Issues:

- Objectives and scope of management symposia have not been clearly defined. Preliminary needs assessment completed by a consultant. Further analysis and senior management consensus on concept, objectives, and approach is needed.
- Continuing Resolution (CR) may impact resource availability to conduct the management symposia. Schedule slip is likely.

■ Estimated Completion Date: Q4 FY07

■ Proposed Revisions to the Project Plan: None

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WBS 1.2 Institutional Decision Making and Assurance Processes

Activity Status –  Scope  Cost  Schedule

■ Progress/Description of Work Completed

- Operations Forum is evolving and promises to be a key contributor to institutional analysis of operationally related SFAs.
- PerformanceSoft deployment on schedule. Initial feedback indicates the potential for strong institutional acceptance
- P&SP staff attended an MIT-Sloan course to improve analysis capabilities for strategy development. A key element was related to the analysis necessary to understand and satisfy customer, consumer, and stakeholder needs.
- Improvements to Events and Issues Management processes, particularly wrt causal analysis will contribute to this objective

■ Emerging Risks/Issues:

- Continuing Resolution (CR) may impact resource availability to develop necessary competencies by the end of FY07 as scheduled.
- Target date for development of Institutional Level prioritization framework will be missed. Little to no impact on current phase of project.


■ Estimated Completion Date: Q2 FY07

■ Proposed Revisions to the Project Plan: None

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WBS 1.3 Align Resource Allocation Processes

Activity Status –  Scope  Cost  Schedule

■ Progress/Description of Work Completed

- Included in FY07 Annual lab plan. Substantial effort to make this work.

■ Emerging Risks/Issues:

- Improved business planning processes, particularly at the organizational level will be a significant undertaking. The objectives and approach currently lack clarity. Consensus among senior management has not yet been established. We will likely stumble unless there is substantial institutional will for its success.
- Executive management attention to deal with the CR is expected to slow progress towards this objective.
- Target date for refining institutional level discretionary allocation process/practices will slip. Slip of a couple months can occur with little impact on overall project.

■ Estimated Completion Date: Q4 FY07

■ Proposed Revisions to the Project Plan: None

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WBS 1.4 Verify Sustainability and Effectiveness

Activity Status –  Scope  Cost  Schedule

■ Progress/Description of Work Completed

- Peer review of IO roles recently completed. Actions taken to clarify IO roles and responsibilities and ownership of IO products.
- Senior management R2A2s, specifically for feedback and improvement activities, have been reviewed and updated. Lab level approval for deployment is needed.
- Senior management goals for strategy execution have been defined in the ALP.

■ Emerging Risks/Issues:

Senior Management R2A2s need to be approved by 12/30/06 to meet current due date.

■ Estimated Completion Date: Q1 FY07

■ Proposed Revisions to the Project Plan: None

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Work Control Managers & Experimental Review Coordinators Meeting

*Chris Johnson
Steve Coleman*

November 17, 2006

Work Planning & Control Subject Area Changes & Path Forward

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Why are we revising the Subject Area?

- To support the ISM flowdown to contractors & suppliers a major change was required.
- Opportunity to address 10 CFR 851 requirements, WP&C gaps & to improve on existing guidance
 - Pre-job briefing
 - Change control
 - Clarify Building Manager role
 - Hierarchy of hazard control methods
 - Use & generation of lessons learned

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Work Planning & Control SA Changes

■ Section 1.8, ISM Flowdown for Experimental Work

- A new section added to the subject area to support the procurement of staff through the web-requisition system
- **Does not add new requirements** - aimed at informing Experimental Review Coordinators (ERCs) of experimental work procurement

■ Section 2.3, Screening Work Request for Work Permit Determinations

- Clarified guidance for the screening/review of activities that affect experimental operations, hazard classification, or safety envelope of the facility with appropriate personnel (e.g., Building Manager, Facility Manager, ES&H Coordinator)

Work Planning & Control SA Changes

■ Section 2.4, Categorizing Work Requests & Filling Out Work Permit Sections 1 & 2

- Includes guidance for the review of lessons learned associated with the category of work to be performed & utilizing that information to identify potential hazards and/or good work practices.

■ Section 2.5, Filling Out Work Permit Sections 3 – 5 for Moderate- and High-Hazard Activities

- Includes guidance for the review of lessons learned associated with the category of work to be performed & using information obtained to incorporate implementing controls and/or good work practices into work planning documents.

Work Planning & Control SA Changes

■ Section 2.5, Moderate – High Hazard (cont'd)

- Guidance on what should be included in a work plan (i.e., detailed description of work, prerequisites/precautions, operational limits, post work testing, etc.), as applicable.
- Guidance on analysis of hazards & selection of hazard control methods based on hierarchy.
- Guidance on the conduct of pre-job briefings.

■ Section 2.6, Control of Work/Job Change Control

- Specific requirements/guidance for work changes, additional work not screened for hazards, identification of new/additional hazards (i.e., "Scope Creep").

Work Planning & Control SA Changes

■ Section 2.7, Feedback & Improvement

- Includes work site condition (clean and safe)
- Obtaining feedback from workers
- Finally – If the work was performed using a job or facility risk assessment (JRA/FRA), standard operating procedure, pre-approved work plan/instruction (***getting that information back to the right people***)

■ Section 2.9, ISM Flowdown to Contractors & Suppliers

- Before contractor, supplier, or warranty work can be performed on site, the proposed work must be reviewed for work planning & control requirements

NEXT STEPS

- Publish the revised Subject Area – November 30, 2006
- Work Planning & Control Management System Assessment Plan (WBS 2.1.5)
 - Assemble a diverse team of BNL staff
- WP&C Subject Area → Experimental Safety Section Upgrades
 - Assemble a diverse group of Experimental Review Coordinators (ERC)
- Review & respond to recommendations from the recent ISM/Safety Improvement project review on WP&C Activities

2.1.1 Integrate Work Planning & Control Into Strategic Planning

C. Johnson member of ESSH Team

- Good discussions - good people
 - Develop goals & targets consistent with Lab strategy
 - Create BNL-model for excellence
 - Develop ESSH policy
-
- **Environment:** We protect the environment, conserve resources, & prevent pollution.
 - **Safety:** We maintain a safe workplace & we plan our work & perform it safely. We take responsibility for the safety of ourselves, coworkers, & guests.
 - **Security:** We protect people, property, information, computing systems, & facilities.
 - **Health:** We protect human health within our boundaries & in the surrounding community.
 - **Compliance:** We achieve and maintain compliance with applicable ESSH requirements.
 - **Community:** We maintain open, proactive & constructive relationships with our employees, neighbors, regulators, DOE, & our other stakeholders.
 - **Continual Improvement:** We continually improve ESSH performance.

2.1.2 All Work is Planned

Three-Types of Work

1. Worker Planned (formerly SOTC)
2. Pre-Planned
3. Permit Planned

FRA Incorporated into MAXIMO

- Questions placed prominently on MAXIMO work orders to be answered & documented prior to starting work.

Modified Screening Guidelines



MAXIMO Work Order Example

Plant Engineering Work Order Work Order No. EP100237	
Lead Craft: 411	Priority: 5
Work Order Status: In Progress (WIP)	Planning Mode: Worker Planned
Work Order Type: M	Activity Project: Craft/High
Plant Engineering Customer Hotline: x-2550	
Description: 311 BROKEN WINDOWS & REPLACE CEILING TILES	
Location: 0311	
Space Type: 02 Common (Bldg, Hallways)	Space Charge: Y
Bldg. Mgr: Sparrow, Paul J	Est: 4000
Pre-Job Briefing:	
1. What are the steps required to complete this job safely? (Write down plan on back of work order)	
2. What are the biggest risks on this job?	
3. What is required to remove the risks from the job?	
4. What materials and tools are required to perform this job safely?	
Planner: Wootley, Michael P	Engineer: Gen. Supervisor: Dalmachuk, Peter F
Supervisor: Hubbs, Wayne W	
ECS Job No:	
Quick Start Cover: N	Failure Class: 11
Problem Code:	
Requester: Pyle, Arthur J	Request Date: 01/08/2008
Extension: 011-044-7004	Target Start Date: 02/08/2008
Email: jpye@bnl.gov	Target Finish Date: 01/10/2008
Department: AD	Actual Finish Date:
Equipment No:	
WEATHER STRIP DOOR ON NORTH-SIDE OF VACUUM LAB. CONT. STEVE GALL DUST #1114. THIS WAS REPLACED 2 WORKORDERS EP10023700M & EP10023700M (EP10023700M) 1 BROKEN WINDOW NORTH-SIDE DRIVEWAY	



MAXIMO Work Order Example (cont'd)

Brookhaven National Laboratory Plant Engineering Work Order
Work Order No. EP100287

PLAN

ACTUAL

Return original to Maintenance Management Center

Page 3 of 3 MAXIMO Wednesday, November 18, 2008 9:15:52 AM

2.1.3 Building Manager Role

- Curtail Building Manager Pilot & accept that BM must be notified anytime work is done
- BM is prime contact, must know when to get WCM/ WCC involved
- Workshop at the second-half of August BM meeting
- Asked 8 questions – received useful feedback on:
 - Point of contact
 - How to contact
 - Change control
 - Differences between small science, large science, administration & support
 - WCM/BM interface
 - Training needs

2.1.4 ISM Flowdown

- NSLS/PPM lead effort to modify – very successful
- Best practice in PERP Review
- New table being populated – will be posted in PeopleSoft & used to validate future Web Reqs
- WCC/WCM will now sign on that work has been properly screened

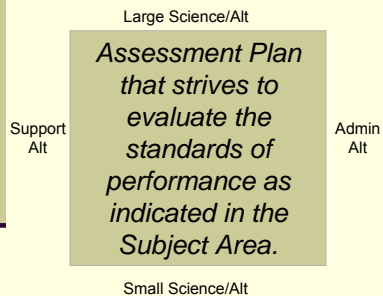
2.1.5 Job Change Control

- Worker Planned Work – Established thresholds for “scope creep” to provide guidance when to pause work & contact supervisor
- Permit Planned Work – A procedure is under development & will be implemented in December 2006

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2.1.6 Work Planning & Control Self-Assessment

- Will form team of four representative areas of the Lab to work this effort



C. Johnson, S. Coleman, M. Bebon

2.1.7 Human Performance

- Modified MAXIMO work order to incorporate pre-job questions
- Two-day workshop (with consultant to develop plan to incorporate HU concepts)
- Management accepted-approach as valid future implementation plan

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2.2.1 / 2.2.2 WCM/WCC Qualifications & Training

<i>Description</i>	<i>Web</i>	<i>Live</i>	<i>Read</i>
Revised web-based training	x		
10-hour OSHA		x	
OHSAS 18001			x
Large science presentation		x	
Small science presentation		x	
Support side presentation		x	
Facilities Management (Professional outside course)		x	
Hazard identification in conventional facilities	x		
Hazard identification in laboratory spaces	x		
BNL specific WP&C	x		
Screening work for work permits	x		
Preparing work permits	x		
Conducting a job walk-down & review	x		
Conducting pre & post job briefs	x		
Soliciting worker feedback	x		
MAXIMO work flow		x	
BNL planning modes			x
Davis-Bacon law training			
ISM	x		

C. Johnson, B. Schwaner, J. Nemeth, & many others to develop.

ISM/Safety Improvement Project Review

WBS 1.0 Feedback and Improvement (*Partial*)
WBS 3.0 Documentation Initiatives
WBS 4.0 Communication & Involvement Initiatives (*Partial*)

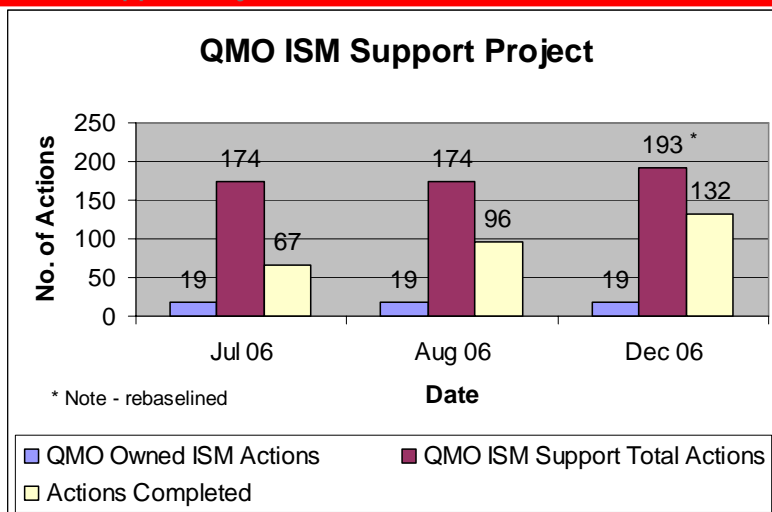
Roy H Lebel

December 21, 2007

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QMO ISM Support Project



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WBS 1.1.2 Realign Institutional Level Reporting Along SFA

Framework

Scope	Cost	Schedule
Green	Green	Green

Progress/Description of Work Completed:

- Management Systems (MSs) functions and PEMP Measures have been mapped to SFAs.
- PB Views software by Performance Soft, which contains a database, was purchased to show the relationships between the ALP, PEMP, and MSs and will be used to elevate the level of reporting at the institutional level.
- Performance rating definitions have been developed for the ALP and MSs metrics and the reporting criteria has been re-defined to be more succinct.
- The reporting structure for the FY2007 Quarter 1 data call has been aligned with the Annual Laboratory Plan.

Emerging Risks/Issues:

- None

Corrective Action(s):

- None

Proposed Revision(s) to the Project Plan:

- None

% Complete: 95%

Estimated Completion Date: 12/30/06

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WBS 1.2.6 Establish Common Institutional Level Data

Collection and Reporting Process

Scope	Cost	Schedule
Green	Green	Green

Progress/Description of Work Completed:

- To support the alignment of the PEMP and MS with the SFAs, PB Views (Performance Soft) was purchased to be used as the institutional level data collection reporting business system (9/06)
- Administrator Training was provided (11/06)
- ALP/PEMP/MS metrics were loaded into the database (11/06)
- The ESH&Q Pilot Group user training was provided (12/06)
- Customized books were created for the ALP, PEMP, MSs, and ESH&Q Directorate.

Emerging Risks/Issues:

- None

Corrective Action(s):

- None

Proposed Revision(s) to the Project Plan:

- None

% Complete: 83%

Estimated Completion Date: 3/30/07

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WBS 1.4.10 Establish minimum requirements for personnel responsible for managing and performing assurance activities (DOE O226.1)

Scope	Cost	Schedule
Green	Green	Green

Progress/Description of Work Completed:

- Bench-marked Battelle Corporate and PNNL to determine how to ensure that personnel responsible for managing or performing contractor assurance functions possess necessary experience, knowledge, skills and abilities
- Determined that requirements (currently in-place) at BNL are adequate for qualifying personnel to manage and perform contractor assurance functions
- Mapped training and qualification elements to requirements (DOE O226.1) to clarify how BNL ensures personnel are qualified

Emerging Risks/Issues:

- None

Corrective Action(s):

- None

Proposed Revision(s) to the Project Plan:

- None

% Complete: 95%

Estimated Completion Date: 12/29/06

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**Contractor Assurance System Requirements and Qualifications
(Reference: DOE O 226.1 CRD Appendix A)**

CRD Section	BNL Management System	Subject Area, etc.	Training/Qualifications for Responsible Personnel
1a. Comprehensive Integrated Contractor Assurance System	Integrated Assessment Program, Quality Management	Integrated Assessment, Identifying and Reporting Nonconformances, Event/Issues Management	BNL line managers (Levels 1 and 2) are required to complete awareness training for Event/Issues Management. BNL Quality Representatives (JTA GE-27) have required training and participate in an ongoing series of instructional seminars covering elements of Quality (Contractor) Assurance.
1b. Assurance Activities All Encompassing	Integrated Assessment Program, Quality Management, Others as below	Integrated Assessment	Responsibilities listed in IAP and Quality Management System Descriptions. No specific training requirements other than for Quality Representatives.
1c. Assurance Data Documented and Readily Available to DOE	Integrated Assessment Program, Quality Management	Integrated Assessment	Responsibilities listed in IAP and Quality Management System Descriptions. No specific training requirements other than for Quality Representatives.
2a. Self Assessment Used to Evaluate Performance at All Levels	Integrated Assessment Program, Quality Management	Integrated Assessment	Responsibilities listed in IAP and Quality Management System Descriptions. Specific training requirements for Quality Representatives. Many BNL personnel required to be trained as lead auditors (GE-45E) and internal auditors (GE-45C).

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WBS 3.1.5 Roll-Up Roles and Responsibilities to Management System Level; Include Management System Stewards and Points of Contact

Scope	Cost	Schedule
Yellow	Green	Red

Progress/Description of Work Completed:

- DDO issued a memo (11/17) to Operations MS Stewards to review SBMS documents to roll up all level 1 & level 2 management responsibilities to the MS Description. This action will be completed by Operations MS Stewards first, as a pilot run.
- Task to be completed by the POC's and submitted by 12/15. As of 12/20, only 5 of 17 POC's have submitted their input.

Emerging Risks/Issues:

- Missed ISM completion date of 11/1
- POC's are not meeting the assigned schedule dates.
- After the Operations MS are completed, all other System's Champions will instruct their MS Stewards to roll-up applicable roles and responsibilities to the MS level.

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WBS 3.1.5 Roll-Up Roles and Responsibilities to Management System Level; Include Management System Stewards and Points of Contact (cont.)

Proposed Corrective Action(s):

- DDO to re-issue a memo to MS Stewards

Proposed Revision(s) to the Project Plan:

- ISM WBS task will be broken into 2 phases.
Operations will be the pilot (phase 1) and phase 2 will be the remainder of the Stewards

% Complete: 23%

Estimated Completion Date: 02/16/07

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WBS 3.2.1 Requirements Management Process Improvements

Scope	Cost	Schedule
Green	Green	Yellow

The plan for the requirements management process improvements includes three phases:

- Phase 1 - Requirements Verification
- Phase 2 - Test, Modify, and Roll-out Electronic Requirements Tool
- Phase 3 - Contract Mapping

Progress/Description of Work Completed:

Requirements Verification (Target Completion is March 30, 2007)

- Binned Management Systems into groups based on their impact. (01/06)
- Held Management System Steward and Point of Contact meetings to communicate the Requirements Management Plan (08/06)

Test, Modify, and Roll-out Electronic Requirements Tool (Complete)

- Met with the DDO and the ALD for ESH&Q throughout the system planning and development process.
- Implemented the new Electronic Requirements Management Tools. (10/06)

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WBS 3.2.1 Requirements Management Process Improvements (cont.)

Contract Mapping

- Analyzed the Prime Contract Matrix that was delivered to the Quality Management Office by the Finance Directorate, to determine the approach for documenting compliance (06/06)
 - Compliance will be documented by contract clause

Emerging Risks/Issues:

- The schedule for requirements verification is not being consistently met by all MS Stewards(see attached document)
- The target completion date for the verification (March 30, 2007) is in jeopardy.

Corrective Action(s):

- QMO has re-allocated a resource to help several MS Stewards with requirements verification
- Will provide monthly status reports to Management System Champions

Proposed Revision(s) to the Project Plan:

- Reorganize the ISM Project Plan to depict the current requirements management process improvements (3 phases).

% Complete: 10%

Estimated Completion Date: 08/08

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WBS 3.2.2 Re-baseline and Finish the SBMS Completion Project

Scope	Cost	Schedule
Green	Green	Green

Progress/Description of Work Completed:

- Worked with SME/POC's to review approximately 250 "Legacy" documents/sections that are outdated to ensure SBMS documents are up-to-date. To date 249 documents have been completed and 1 document remains to be revised or rescinded.

Emerging Risks/Issues:

- None

Corrective Action(s):

- None

Proposed Revision(s) to the Project Plan:

- Clarify WBS description to include "legacy" documents

% Complete: 90%

Estimated Completion Date: 12/31/06

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WBS 4.1.3 Operations Forum Evaluation and Implementation

Scope	Cost	Schedule
Green	Green	Green

Progress/Description of Work Completed:

- The development and implementation of the Operations Forum has been in progress throughout FY06. Pilot forums were held in January and June 2006.
- Over the summer the DDO appointed a Chair and Vice Chair.
- The QMO worked with the Chair and Vice Chair to draft a charter, and determine the agenda and meeting approach.
- The latest Forum was held on 12/6/06. At the conclusion of the meeting, the DDO was presented with several key concerns of the forum.

Emerging Risks/Issues:

- None

Corrective Action(s):

- None

Proposed Revision(s) to the Project Plan:

- None

% Complete: 90%

Estimated Completion Date: 02/15/07

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WBS 4.1.5 Barrier Analysis and Five Whys Causal Analyses Workshops

Scope	Cost	Schedule
Green	Green	Green

Progress/Description of Work Completed:

- 8 training sessions were provided the week of 7/31 to 60 people
- 3 sessions on Events and Causal Factor Analysis and Human Performance Improvement were provided the week of 12/11 to 30 people

Emerging Risks/Issues:

- None

Corrective Action(s):

- None

Proposed Revision(s) to the Project Plan:

- Addition of Fact Finding Facilitator Training scheduled for 1/9-10/07 for 31 people

% Complete: 100%

Estimated Completion Date: 08/03/06

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WBS 4.1.6 Human Performance Strategy Development and Implementation Plan

Scope	Cost	Schedule
Green	Yellow	Green

Progress/Description of Work Completed:

- Rob Fisher, Fisher Improvement Technologies provided consultation for a small Human Performance Improvement (HPI) strategy development workshop in August 2006.
- The QMO is finalizing an Issue & Decision Paper which discusses the need for and benefits of implementing HPI at BNL. It includes a recommended implementation plan. The paper will be submitted to the Director and DDO by 12/31/06.

Emerging Risks/Issues:

- Due to the current budget situation (Continuing Resolution) implementation may have to take place on a more measured basis.

Corrective Action(s):

- None

Proposed Revision(s) to the Project Plan:

- May propose to revise ISM Project Plan to reflect a "Go/No Go" decision

% Complete: 95%

Estimated Completion Date: 3/30/07

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Brookhaven National Laboratory

ISM/Safety Improvement Project Review Meeting WBS 6.0 Ongoing Action Plans Tracking & Follow-up

Jim Tarpinian
December 21, 2006



WBS 6.0 Ongoing Action Plans Tracking/Follow Up

■ WBS 6.2 Material Handling/Hoisting and Rigging (H&R) Action Plan

• Activity Status – Scope Cost Schedule

Progress/Description of Work Completed

- BNL established requirements for performing initial receipt inspection of purchased material handling/hoisting and rigging equipment. [Closes ATS 1948.2.1]
- Hazards Analysis for Skill of the Craft are complete. Addressed through the development of Job Risk Assessments (JRAs) and registration of OHSAS 18001. [Closes ATS1948.1]
- Training program updates have been completed. Incidental crane operators and forklift operators will be qualified for the class of crane they operate. HEMO's are now required to be certified to operate mobile cranes. [Closes ATS 1948.1.11]
- A facility configuration management plan was developed and is now being implemented. The plan includes the location of equipment to provide safe operation. Conducted tool box meetings with crane & forklift operators to communicate pre-use inspection expectations/requirements. [Closes ATS 30782.1, 2.2, 2.4 & 2]

Emerging Risks/Issues/Corrective Actions

- Failure to respond/address the Independent Audit & Oversight (IA&O) effectiveness review conducted in the 1st quarter of FY06.

Estimated Completion Date

- 06/30/2007 – Last action item is to perform an effectiveness review of material handling corrective actions

Proposed Revisions to the Project Plan

NONE

WBS 6.0 Ongoing Action Plans Tracking/Follow Up

■ WBS 6.3 Industrial Hygiene Assessment Action Plan

- Activity Status – Scope Cost Schedule

Progress/Description of Work Completed

- A list of job profiles that require routine monitoring was developed. [Closes ATS 2823.11.1]
- In conjunction with DOE-BHSD, an implementation schedule for completing baseline exposure assessments was completed. [Closes ATS 2823.10.2]
- Required monitoring on all cutting/welding/brazing operations was completed. [Closes ATS 2823.7.1]

Emerging Risks/Issues/Corrective Actions

- Exposure monitoring for high hazard operations is 11 months overdue [ATS 2823.10.5]
- Monitoring is completed for all high hazard operations but a few
- BSA/BHSD review on the Industrial Hygiene (IH) Delivery Model is 9 months overdue [ATS 2823.3.7]

Estimated Completion Date

- May 25, 2007

Proposed Revisions to the Project Plan

- Corrective Action Plan will be part of the 10CFR851 submittal to DOE/BHSD

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WBS 6.0 Ongoing Action Plans Tracking/Follow Up

■ WBS 6.4 Energized Electrical Work Review (NFPA 70E) Action Plan

- Activity Status – Scope Cost Schedule

Progress/Description of Work Completed

- Safety and Health Services completed an analysis to determine resources required to complete electrical safety task. An electrical engineer was requested in the FY07 Incremental Budget. [Closes ATS 2725.16.1]
- Generic Arc Flash Labels are actively being affixed to electrical distribution equipment. Generic labeling of panels is expected to be completed by December 2007. As Arc Flash Calculations are completed they will replace the generic labels. [Statuses ATS 2725.9.1]

Emerging Risks/Issues/Corrective Actions

NONE

Estimated Completion Date

- 12/30/2008

Proposed Revisions to the Project Plan

NONE

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BROOKHAVEN
NATIONAL LABORATORY

WBS 6.0 Ongoing Action Plans Tracking/Follow Up

■ WBS 6.5 Authority Having Jurisdiction (AHJ) Nationally Recognized Testing Laboratory (NRTL) Action Plan

• Activity Status – Scope Cost Schedule

Progress/Description of Work Completed

- Set up the equipment inspection and approval process (OSHA Subpart S)
- Trained inspectors (~40)
- Survey of applicable equipment is in process
- NSLS, PE and CAD have taken ownership of their NRTL programs
- Electrical Safety Program Subject Area draft is in review

Emerging Risks/Issues/Corrective Actions

- Electrical equipment inspection progress is slow (one year behind schedule)
- Estimate for completion by Sept '09 will require 5 FTE per year for 2 years
- Potential 10CFR851 noncompliance for NRTL
- Electrical safety

Estimated Completion Date

- NRTL Corrective Action Plan committed BNL to complete by Sept. 2009
- New date for Electrical Safety Subject Area final – February 26, 2007

Proposed Revisions to the Project Plan

- Transfer responsibility for inspection to the responsible line organizations

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NATIONAL LABORATORY

WBS 6.0 Ongoing Action Plans Tracking/Follow Up

■ WBS 6.6 Inadequate Control of Procedures Action Plan

• Activity Status – Scope Cost Schedule

Progress/Description of Work Completed

- SBMS Documents and Internal Procedures subject areas have been revised to include guidance and requirements on the periodicity of reviews. Addressed the PAAA (NTS-CH-BH-BNL-BNL-2005-0001) Noncompliance Report. [Closes ATS 2935.2.1, 2935.2.2]
- Workshops were conducted to communicate expectations and requirements to affected stakeholders. [Closes ATS 2935.2.3]

Emerging Risks/Issues

NONE

Estimated Completion Date

- On schedule 4/1/2007 – Remaining action items are to validate effectiveness of Lab-Wide and Internal Review processes and to verify implementation of procedure review requirements. [ATS 2935.2.4 & 2.5]

Proposed Revisions to the Project Plan

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BROOKHAVEN
NATIONAL LABORATORY

BNL ISM/Safety Improvement Project Plan (ATS# 2944)

ID	WBS	Task Name	% Complete	Actual Start	Baseline Start	Actual Finish	Baseline Finish
1	0	BNL ISM/Safety Improvement Project	63%	Mon 12/12/05	Mon 5/1/06	NA	Tue 8/19/08
2	1.0	Institutional Feedback & Performance Improvement Initiatives	60%	Wed 3/1/06	Mon 5/1/06	NA	Fri 11/2/07
3	1.1	Laboratory Strategy-Focused Framework	78%	Mon 5/1/06	Mon 5/1/06	NA	Wed 4/25/07
4	1.1.1	Complete initial SFA Planning and Performance Management Documents -- Start and Kickoff Parallel Task/Activities	100%	Mon 5/1/06	Mon 5/1/06	Wed 11/15/06	Wed 11/15/06
5	1.1.2	Realign Quarterly Institutional Level Reporting Along SFA Framework	100%	Wed 5/3/06	Mon 10/2/06	Tue 12/26/06	Fri 12/29/06
6	1.1.3	Develop and Implement Management Symposia	10%	Tue 8/1/06	Tue 1/2/07	NA	Fri 5/25/07
7	1.1.4	Develop, Publish, and Implement Integrated Planning and Performance Management/Assurance Calendar	100%	Fri 6/2/06	Fri 7/7/06	Fri 9/29/06	Sat 9/30/06
8	1.2	Institutional Decision Making and Assurance Processes	85%	Mon 5/1/06	Mon 5/1/06	NA	Wed 6/20/07
9	1.2.1	Define and Develop SFA Analysis Capability	5%	Thu 12/21/06	Thu 4/26/07	NA	Fri 9/28/07
10	1.2.2	Establish Institutional Prioritization Framework	5%	Wed 11/29/06	Wed 11/29/06	NA	Sun 12/31/06
11	1.2.3	Define and Implement a Contractor Assurance Process	100%	Mon 5/1/06	Mon 5/1/06	Fri 9/29/06	Sat 9/30/06
12	1.2.4	Event/Issues Management Processes	100%	Mon 5/1/06	Mon 5/1/06	Fri 10/20/06	Sun 12/31/06
13	1.2.5	Upgrade/Re-Tool the Assessment Tracking System	100%	Mon 5/1/06	Mon 5/1/06	Fri 10/20/06	Wed 2/28/07
14	1.2.6	Establish Common Institutional Level Data Collection and Reporting Process and Tool	86%	Tue 8/15/06	Fri 12/15/06	NA	Fri 3/30/07
15	1.3	Align Resource Allocation Processes	2%	Mon 8/28/06	Mon 9/18/06	NA	Wed 4/4/07
16	1.3.1	Refine and Redefine Institutional Level Discretionary Allocation Processes Description	5%	Mon 8/28/06	Mon 9/18/06	NA	Sun 12/31/06
17	1.3.2	Define and Implement an Organizational Unit Business Planning Process	0%	NA	Tue 1/2/07	NA	Fri 7/27/07
18	1.3.3	Integrate Decision and Budget Allocation Processes into Planning and Performance Management/Assurance Calendar	0%	NA	Tue 1/2/07	NA	Fri 5/25/07
19	1.4	Verify Sustainability & Effectiveness	48%	Wed 3/1/06	Mon 5/1/06	NA	Fri 11/2/07
20	1.4.1	Complete comprehensive gap analysis against key program design input requirements and expectations	100%	Mon 5/15/06	Tue 6/20/06	Wed 7/19/06	Thu 7/20/06
21	1.4.2	Update Re-Engineering Project Plan as necessary to address gaps identified under WBS Activity 1.4.1	100%	Mon 7/17/06	Thu 7/20/06	Thu 8/31/06	Sun 7/30/06
22	1.4.3	Review and update as necessary middle management and staff R2A2s and Performance Plans/Personal Goals to Reflect Strategy Execution and Assurance	22%	Thu 6/8/06	Mon 7/9/07	NA	Fri 9/28/07
23	1.4.4	Complete Analysis of the Adequacy of Institutional Commitment to Independent Oversight (third party review)	100%	Wed 3/1/06	Mon 5/1/06	Fri 8/25/06	Fri 8/25/06
24	1.4.5	Review and Refine as Necessary Roles and Practices of Institutional Councils	100%	Mon 6/19/06	Mon 6/12/06	Wed 8/30/06	Fri 9/29/06
25	1.4.6	Review Organizational Roles, Structure, and Resources and Make necessary changes to optimize effectiveness and efficiency of on-going administration of performance Management Processes	0%	NA	Mon 4/2/07	NA	Fri 6/29/07
26	1.4.7	Review and update as necessary Senior Management R2A2s and performance plans/personal goals to reflect strategy execution and assurance	70%	Mon 7/24/06	Mon 8/7/06	NA	Fri 9/29/06

BNL ISM/Safety Improvement Project Plan (ATS# 2944)

ID	WBS	Task Name	% Complete	Actual Start	Baseline Start	Actual Finish	Baseline Finish
27	1.4.8	Conduct an effectiveness review of the performance Management Program re-engineering effort	0%	NA	Mon 6/18/07	NA	Fri 11/2/07
28	1.4.9	Establish and implement a process to verify personnel responsible for managing and performing assurance activities	0%	NA	Mon 8/6/07	NA	Fri 9/28/07
29	1.4.10	Establish minimum requirements for personnel responsible for managing and performing assurance activities (address gap analysis finding "personnel possess appropriate experience, knowledge, skills and abilities"). Include in contractor assurance descript	100%	Tue 10/24/06	Fri 10/13/06	Tue 12/26/06	Sat 12/30/06
30	2.0	Work Planning & Control Performance Improvement Initiatives	63%	Wed 3/15/06	Mon 5/1/06	NA	Mon 12/11/06
31	2.1	Work Performance Improvement Initiatives	69%	Wed 3/15/06	Mon 5/1/06	NA	Mon 12/11/06
32	2.1.1	Integrate Work Planning & Control into the Laboratory's Strategic Planning Process	100%	Mon 5/15/06	Mon 5/22/06	Fri 6/9/06	Mon 6/19/06
33	2.1.1.1	Assign a work planning and control representative to the ESS&H SFA Team	100%	Mon 5/15/06	Mon 5/22/06	Fri 5/26/06	Mon 5/29/06
34	2.1.1.2	Incorporate a strong commitment to work planning & control into the SFA goals and objective for the ESS&H SFA	100%	Mon 6/5/06	Fri 6/9/06	Fri 6/9/06	Mon 6/19/06
35	2.1.2	Create a Culture of "All Work is Planned" and Supporting Procedures and Methodologies	50%	Mon 5/15/06	Mon 5/22/06	NA	Thu 11/2/06
36	2.1.2.1	Define and implement a "Worker Planned Work" process (i.e. re-define and enhance skill of the worker determinations hazard-analysis requirements and communication of hazards)	30%	Mon 5/15/06	Mon 5/29/06	NA	Fri 10/20/06
37	2.1.2.2	Evaluate the quality of job risk assessments based on their impact on worker planned work and institutional risk. Revise/update JRA's as	0%	NA	Fri 5/25/07	NA	Fri 9/14/07
38	2.1.2.3	Develop a process to fully integrate Job Risk Analyses and Facility Risk Analyses into the Work Planning & Control Process	30%	Mon 5/15/06	Mon 5/29/06	NA	Fri 10/20/06
39	2.1.2.4	Improve processes for hazards analysis and mitigation where multiple hazards exist and interact; e.g. multi-craft jobs	30%	Thu 6/29/06	Thu 7/20/06	NA	Fri 10/20/06
40	2.1.2.5	Integrate Lessons-Learned data into all Work Planning & Control processes	100%	Tue 6/27/06	Mon 6/26/06	Thu 11/30/06	Fri 10/20/06
41	2.1.2.6	Develop requirements for consideration of multiple hazards and their interaction	30%	Thu 6/29/06	Thu 7/27/06	NA	Fri 10/20/06
42	2.1.3	Clarify Building Manager Role in Work Planning & Control	100%	Mon 5/1/06	Mon 5/1/06	Fri 8/11/06	Thu 11/2/06
43	2.1.3.1	Evaluate the data collected from the Bldg Manager work notification pilot and use the results to define the role of the Bldg Manager in WP&C, specifically the required interaction between Bldg Manager & WCM.	100%	Mon 5/1/06	Mon 5/1/06	Fri 8/11/06	Wed 7/12/06
44	2.1.4	Address Gaps in ISM Flow down Processes for Subcontractors and Vendors	100%	Wed 3/15/06	Mon 5/1/06	Tue 12/19/06	Thu 11/2/06
45	2.1.4.1	Supplement existing ISM requirements flow-down procurement processes to include small contracts, service work, and warranty work where actual work is performed on site	100%	Wed 3/15/06	Mon 5/1/06	Thu 6/8/06	Fri 6/2/06
46	2.1.4.2	Modify contract, purchase order, and other procurement terms and conditions	100%	Mon 5/15/06	Mon 6/5/06	Fri 7/7/06	Mon 6/19/06
47	2.1.4.3	Integrate review and approval of web requisitions by WCMs and/or Coordinators where work is to be performed on-site. Provide training on the new process and implement/go live	100%	Mon 5/15/06	Tue 6/20/06	Tue 12/19/06	Thu 7/20/06
48	2.1.5	Work Planning Processes for Job Change Control	100%	Mon 5/15/06	Mon 5/29/06	Fri 11/24/06	Thu 11/2/06

BNL ISM/Safety Improvement Project Plan (ATS# 2944)

ID	WBS	Task Name	% Complete	Actual Start	Baseline Start	Actual Finish	Baseline Finish
49	2.1.5.1	Develop procedures for addressing "scope creep" or changes in the work after the completion of initial planning	100%	Mon 5/15/06	Mon 5/29/06	Fri 11/24/06	Wed 7/26/06
50	2.1.5.2	Conduct workshops/training with Work Control Managers/Coordinators and workers to communicate job change control process and institutional expectations	100%	Thu 11/2/06	Tue 1/2/07	Fri 11/24/06	Fri 2/16/07
51	2.1.6	Upgrade Work Planning & Control Management System Assessment Plan	11%	Mon 5/15/06	Fri 11/3/06	NA	Mon 12/11/06
52	2.1.6.1	Define success factors for the WP&C Management System	0%	NA	Fri 11/3/06	NA	Thu 11/9/06
53	2.1.6.2	Define the risks associated with the management system	0%	NA	Fri 11/3/06	NA	Thu 11/9/06
54	2.1.6.3	Identify quantitative measures to track and report management system performance	0%	NA	Fri 11/10/06	NA	Mon 11/27/06
55	2.1.6.4	Incorporate measures into quarterly reporting of management system status as part of Contractor and Corporate Assurance	20%	Mon 5/15/06	Tue 11/28/06	NA	Mon 12/11/06
56	2.1.6.5	Formalize the role of WCMs quarterly feedback session in management system assessment and improvement planning	45%	Mon 5/15/06	Fri 11/17/06	NA	Mon 11/27/06
57	2.1.6.6	Update the WP&C Assessment Tool	0%	NA	Tue 11/28/06	NA	Mon 12/4/06
58	2.1.7	Integrate Human Performance Factors Principles into the Work Planning and Control Management System	52%	Fri 7/21/06	Thu 7/27/06	NA	Thu 11/2/06
59	2.1.7.1	Integrate the "Four Key Questions" into the Pre-Job briefing process	100%	Fri 7/21/06	Thu 7/27/06	Thu 11/30/06	Wed 8/30/06
60	2.1.7.2	Develop an approach to include error precursors in the hazards analysis process	5%	Mon 7/24/06	Thu 7/27/06	NA	Wed 8/30/06
61	2.1.7.3	Develop and provide longer term recommendations for a more comprehensive integration process to the MS Steward	5%	Thu 10/26/06	Thu 8/31/06	NA	Thu 10/5/06
62	2.2	Work Planning and Control Qualification/Training	50%	Mon 5/1/06	Mon 5/1/06	NA	Fri 11/17/06
63	2.2.1	Upgrade Work Control Manager and Coordinator Training & Qualifications	82%	Mon 5/1/06	Mon 5/1/06	NA	Thu 11/2/06
64	2.2.1.1	Review Current training & qualifications requirements for Work Control Managers and Work Control Coordinators	100%	Mon 5/1/06	Mon 5/1/06	Mon 6/12/06	Mon 6/12/06
65	2.2.1.2	Revise Existing training and add new requirements as appropriate	80%	Mon 5/15/06	Tue 6/13/06	NA	Thu 8/10/06
66	2.2.1.3	Develop a schedule for re-qualifying Work Control Managers and Coordinators through training & testing	80%	Fri 10/27/06	Fri 8/11/06	NA	Fri 9/8/06
67	2.2.1.4	Update the Work Planning & Control Management System and Subject Areas, and Job Training Assessment (JTA) as applicable	55%	Wed 11/1/06	Tue 10/17/06	NA	Thu 11/2/06
68	2.2.2	Revitalize the Training Program for Work Control Managers & Work Control Coordinators	17%	Mon 9/11/06	Fri 8/11/06	NA	Fri 11/17/06
69	2.2.2.1	Develop a classroom training curriculum that offers scenario-based, or "case study" training	30%	Mon 10/2/06	Fri 8/11/06	NA	Fri 9/15/06
70	2.2.2.2	Add to or enhance the following elements of the training program (screening work, preparing work permits, performing job hazard analyses, job walk-down and job review, pre and post-job briefing, & soliciting worker feedback	20%	Mon 10/2/06	Fri 8/18/06	NA	Fri 9/15/06
71	2.2.2.3	Upgrade the computer (web) based training to incorporate case studies	15%	Mon 9/11/06	Mon 9/18/06	NA	Fri 10/27/06
72	2.2.2.4	Institute learning validation through testing	0%	NA	Mon 10/30/06	NA	Fri 11/17/06

BNL ISM/Safety Improvement Project Plan (ATS# 2944)

ID	WBS	Task Name	% Complete	Actual Start	Baseline Start	Actual Finish	Baseline Finish
73	2.2.2.5	Incorporate training program changes into the Work Planning & Control Management System Description and Subject Areas as applicable	0%	NA	Fri 10/27/06	NA	Thu 11/2/06
74	2.2.2.6	Incorporate all changes resulting from corrective actions in this plan in the revised WCM/WCC training/re-training as applicable	25%	Wed 11/1/06	Fri 10/27/06	NA	Fri 11/3/06
75	2.3	WP&C Management System and Subject Area Revisions/Updates. Includes the process for worker planned work, clarify the role of building managers, flowdown to subcontractors, training, job change control and human performance principles	20%	Fri 7/28/06	Mon 11/6/06	NA	Fri 12/29/06
76	3.0	Documentation Improvement Initiatives	48%	Mon 12/12/05	Mon 5/1/06	NA	Tue 8/5/08
77	3.1	Key Programmatic Document Initiatives	53%	Wed 2/1/06	Mon 5/1/06	NA	Fri 1/12/07
78	3.1.1	Consolidate three ISM Related Management Systems; Upgrade Program Description	24%	Mon 5/1/06	Mon 5/1/06	NA	Fri 1/12/07
79	3.1.1.1	Consolidate ISM Related Management Systems; Upgrade ISM Program Description	30%	Mon 5/1/06	Mon 5/1/06	NA	Thu 11/16/06
80	3.1.1.2	Designate a single point of contact for the new management system	0%	NA	Fri 11/17/06	NA	Mon 11/27/06
81	3.1.1.3	Develop a presentation to actively communicate the significant changes resulting from this consolidation	0%	NA	Tue 11/28/06	NA	Fri 1/12/07
82	3.1.2	Incorporate Annual ISM Documentation Review into Lab Planning & Assessment	100%	Mon 9/25/06	Mon 9/25/06	Sat 9/30/06	Sat 9/30/06
83	3.1.3	Correct specific Procedure Deficiencies from Evaluation of ISM Assessment	100%	Wed 2/1/06	Mon 5/1/06	Fri 8/25/06	Wed 8/30/06
84	3.1.3.1	Review Evaluation of ISM Report and capture all references to documentation/procedure deficiencies	100%	Wed 2/1/06	Mon 5/1/06	Fri 5/5/06	Mon 8/7/06
85	3.1.3.2	Distribute deficiencies to appropriate management system stewards for correction	100%	Mon 2/20/06	Tue 8/8/06	Fri 6/2/06	Wed 8/16/06
86	3.1.3.3	Submit Notice of Intent (NOI) to the SBMS Office for incorporation into the SBMS Completion Project	100%	Fri 6/30/06	Thu 8/17/06	Fri 8/25/06	Thu 8/31/06
87	3.1.4	Realign Management System Steward Reporting Structure	100%	Mon 5/1/06	Mon 5/1/06	Fri 7/28/06	Tue 8/1/06
88	3.1.4.1	Revise appropriate SBMS documentation to reflect new reporting relationship	100%	Mon 5/1/06	Mon 5/1/06	Fri 7/28/06	Tue 8/1/06
89	3.1.4.2	Brief Laboratory Director and Deputy Director for Science on their new responsibilities	100%	Fri 7/21/06	Thu 7/27/06	Fri 7/28/06	Fri 7/28/06
90	3.1.4.3	Deliver to the HR Management System Steward/Point of Contact additional R2A2 responsibilities for Lab Director, DDO, DDS and MSS's	100%	Mon 7/24/06	Mon 7/31/06	Fri 7/28/06	Tue 8/1/06
91	3.1.5	Roll- up Roles and Responsibilities to Management System Level; Include Management System Stewards and Points of Contact	51%	Wed 5/3/06	Mon 5/22/06	NA	Wed 11/1/06
92	3.1.5.1	Revise SBMS Document guidelines to incorporate a requirement that all roles and responsibilities in any management system documents be summarized in the management system description	100%	Wed 5/3/06	Fri 9/29/06	Fri 9/1/06	Thu 10/26/06
93	3.1.5.2	Search all SBMS documents to identify all such roles and responsibilities	65%	Thu 6/1/06	Mon 5/22/06	NA	Wed 8/2/06
94	3.1.5.3	Update management system descriptions as appropriate	14%	Wed 7/5/06	Mon 8/7/06	NA	Fri 8/25/06
95	3.1.5.4	Summarize management system responsibilities by position	64%	Thu 6/1/06	Mon 8/28/06	NA	Thu 9/28/06

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ID	WBS	Task Name	% Complete	Actual Start	Baseline Start	Actual Finish	Baseline Finish
96	3.1.5.5	Deliver to the Human Resources Management System Steward/POC for incorporation of responsibilities in MSS and Point of Contact R2A2s	25%	Fri 8/11/06	Fri 9/29/06	NA	Wed 11/1/06
97	3.2	Requirements Management Implementation	45%	Mon 12/12/05	Mon 5/1/06	NA	Fri 8/15/08
98	3.2.1	Complete the SBMS Requirements Verification	37%	Mon 12/12/05	Mon 5/1/06	NA	Fri 8/15/08
99	3.2.1.1	Develop software tools to facilitate and document the requirements management process requirements management	60%	Mon 12/12/05	Mon 5/1/06	NA	Mon 1/22/07
100	3.2.1.2	Pilot the requirements management process and prepare guidelines for management system stewards	30%	Mon 5/1/06	Mon 5/1/06	NA	Tue 5/1/07
101	3.2.1.3	Bin management systems into four phases based on institutional risk impact	100%	Mon 5/15/06	Wed 5/2/07	Fri 5/4/07	Tue 10/16/07
102	3.2.1.4	Train management system stewards in the requirements management tools and processes	100%	Fri 5/4/07	Wed 10/17/07	Fri 6/15/07	Tue 11/27/07
103	3.2.1.5	Execute the requirements process in phases based on the binning activity	21%	Mon 5/15/06	Wed 10/17/07	NA	Tue 5/27/08
104	3.2.1.6	Publish revised SBMS Documents as applicable	0%	NA	Wed 5/28/08	NA	Fri 8/15/08
105	3.2.2	Re-baseline and Finish the SBMS Completion Project	76%	Fri 5/26/06	Thu 6/1/06	NA	Sat 12/30/06
106	3.2.2.1	Update the SBMS Completion Project Scope, responsibilities, and schedule	100%	Fri 5/26/06	Thu 6/1/06	Thu 7/27/06	Fri 8/18/06
107	3.2.2.2	Secure commitment of contributed and/or incremental resources	100%	Fri 5/26/06	Tue 8/22/06	Tue 7/11/06	Fri 10/20/06
108	3.2.2.3	Implement the SBMS Completion Project in accordance with the approved plan	60%	Thu 8/31/06	Mon 8/21/06	NA	Sat 12/30/06
109	4.0	Communication & Involvement Initiatives	80%	Wed 3/1/06	Mon 5/1/06	NA	Mon 1/8/07
110	4.1	New / Revised Document Communications	80%	Wed 3/1/06	Mon 5/1/06	NA	Mon 1/8/07
111	4.1.1	Communicate Revisions and Work Control Requirements	10%	Thu 11/30/06	Wed 12/6/06	NA	Mon 1/8/07
112	4.1.2	ISM Web Based Training and Laboratory Communications	100%	Wed 3/1/06	Mon 5/1/06	Fri 8/18/06	Mon 8/28/06
113	4.1.3	Operations Forum Evaluation / Implementation	90%	Wed 3/1/06	Wed 6/28/06	NA	Thu 2/15/07
114	4.1.4	Worker Safety and Health / ISM Consolidated Management System	5%	Tue 8/1/06	Mon 11/6/06	NA	Tue 12/5/06
115	4.1.5	Barrier Analysis & Five Whys Causal Analyses workshops	100%	Mon 7/31/06	Tue 8/1/06	Fri 12/15/06	Fri 12/29/06
116	4.1.6	Human Performance Strategy Development & Implementation	30%	Mon 8/21/06	Mon 8/28/06	NA	Fri 10/27/06
117	5.0	Collider Accelerator Arc Flash Type B Incident	66%	Mon 5/1/06	Mon 5/1/06	NA	Mon 4/30/07
118	5.1	DOE Type B Team Interim Recommendations	64%	Mon 5/1/06	Mon 5/1/06	NA	Mon 4/30/07
119	5.1.1	Doe Team Interim Recommendation #1 -- Dress for Hazard Category for 480v circuit breaker and switch operation. Interim action to remain in place until Laboratory actions are completed.	100%	Mon 5/1/06	Mon 5/1/06	Mon 7/24/06	Thu 9/28/06
120	5.1.1.1	Lab Action #1 Review the NFPA 70E standards and review their adequacy for personal protective equipment	100%	Mon 5/1/06	Mon 5/1/06	Fri 7/7/06	Thu 9/7/06
121	5.1.1.2	Lab action #2 Upgrade the Laboratory Electrical Safety Standards to better address arc flash personal protective equipment	100%	Mon 5/1/06	Mon 5/1/06	Fri 7/21/06	Thu 9/7/06
122	5.1.1.3	Publish upgraded standard in SBMS or local procedures as appropriate	100%	Fri 7/7/06	Fri 9/8/06	Mon 7/24/06	Thu 9/28/06

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ID	WBS	Task Name	% Complete	Actual Start	Baseline Start	Actual Finish	Baseline Finish
123	5.1.2	DOE Team Interim Recommendation #2 -- Review the practice of racking circuit breakers with bus energized or inserting/removing MCC starter buckets while MCC is energized	53%	Mon 5/1/06	Mon 5/1/06	NA	Fri 7/28/06
124	5.1.2.1	Lab Action #1 Review current procedures to evaluate whether the practice of racking circuit breakers into live bus should be continued	100%	Mon 5/1/06	Mon 5/1/06	Mon 7/24/06	Fri 6/16/06
125	5.1.2.2	Lab Action #2 Benchmark practices for MCC bucket insertion/removal with other Laboratory Electrical Safety Standards	100%	Mon 5/22/06	Mon 6/5/06	Mon 7/24/06	Fri 6/16/06
126	5.1.2.3	Lab Action #3 Modify lab procedures and publish in SBMS and/or local procedures to include requirements for Live bus operations	0%	NA	Fri 9/1/06	NA	Fri 12/1/06
127	5.1.2.4	Lab Action #4 Train/Communicate Laboratory electrical workers in the updated procedures	0%	NA	Fri 12/1/06	NA	Fri 12/22/06
128	5.1.3	DOE Team Interim Recommendation #3 -- Activate/Install ground fault detection systems	13%	Mon 7/24/06	Mon 5/1/06	NA	Mon 4/30/07
129	5.1.3.1	Lab Action #1 Review the status of ground fault indicating relays to verify that they are appropriately set and connected to an alarm monitoring system	100%	Mon 7/24/06	Mon 5/1/06	Fri 8/25/06	Thu 9/21/06
130	5.1.3.2	Lab Action #2 Install/correct/connect relays as needed	40%	Mon 7/24/06	Fri 9/22/06	NA	Tue 3/13/07
131	5.1.3.3	Lab Action #3 Develop/Review procedures for responding to ground fault conditions	0%	NA	Fri 9/22/06	NA	Thu 10/19/06
132	5.1.3.4	Lab Action #4 Modify the Laboratory Electrical Safety Standards, if applicable	0%	NA	Wed 3/14/07	NA	Mon 4/30/07
133	5.1.3.5	Train the Laboratory's electrical workers in updated procedures	0%	NA	Tue 4/24/07	NA	Fri 6/8/07
134	5.1.4	DOE Team Interim Recommendation #4 -- Install systems to minimize voltage transients on undergrounded (floating delta) systems	83%	Mon 5/1/06	Mon 5/1/06	NA	Thu 9/7/06
135	5.1.4.1	Lab Action #1 Conduct further electrical and mechanical forensic analysis to confirm the DOE Team's theory of what caused the arc flash event	100%	Mon 5/1/06	Mon 5/1/06	Wed 7/12/06	Fri 6/2/06
136	5.1.4.2	Lab Action #2 Design protection systems based on a full understanding of the technical cause	100%	Thu 7/6/06	Mon 6/5/06	Wed 7/26/06	Fri 6/23/06
137	5.1.4.3	Lab Action #3 Develop a plan for installing systems (a revised completion date for completion of electrical installation will be provided upon plan completion)	75%	Mon 5/1/06	Mon 5/1/06	NA	Thu 9/7/06
138	5.1.5	DOE Team Interim Recommendation #5 -- Develop and implement a project plan for incident energy calculations	70%	Mon 5/1/06	Mon 5/1/06	NA	Wed 7/26/06
139	5.1.5.1	Lab Action #1 Develop a project Plan for remaining calculation of the arc flash's incident energy calculations	100%	Mon 5/1/06	Mon 5/1/06	Mon 7/24/06	Fri 6/23/06
140	5.1.5.2	Lab Action #2 Implement the plan - (A revised completion date for completion of incident calculations will be provided upon completion of the plan)	20%	Fri 7/7/06	Mon 6/26/06	NA	Wed 7/26/06
141	5.1.6	DOE Team Interim Recommendation #6 -- Assure that Personal Protective Equipment Is Worn Properly	100%	Mon 5/1/06	Mon 5/1/06	Fri 11/10/06	Fri 9/29/06
142	5.1.6.1	Lab Action #1 Review current practices for use of personal protective equipment	100%	Mon 5/1/06	Mon 5/1/06	Fri 11/10/06	Fri 6/30/06
143	5.1.6.2	Lab Action #2 Include the wearing of PPE wear as an item in upcoming negotiations with the IBEW	100%	Mon 6/12/06	Thu 7/6/06	Tue 6/13/06	Mon 7/10/06

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ID	WBS	Task Name	% Complete	Actual Start	Baseline Start	Actual Finish	Baseline Finish
144	5.1.6.3	Lab Action #3 Develop an assurance plan for the uniform Laboratory standard and practice on wearing of PPE	100%	Fri 11/10/06	Thu 7/6/06	Fri 11/10/06	Fri 9/29/06
145	5.2	BNL Arc Flash Corrective Actions	75%	Mon 5/8/06	Mon 5/15/06	NA	Mon 11/20/06
146	5.2.1	Human Performance -Based Accident Investigation	100%	Mon 5/8/06	Mon 5/15/06	Tue 5/23/06	Wed 5/31/06
147	5.2.2	Electrical Safety Assessment	60%	Thu 8/31/06	Wed 6/28/06	NA	Mon 11/20/06
148	5.2.3	Electrical Safety Effectiveness Review	100%	Mon 9/11/06	Wed 6/28/06	Tue 1/9/07	Fri 8/25/06
149	5.2.4	Lessons Learned Review	100%	Mon 5/29/06	Mon 8/28/06	Wed 1/10/07	Fri 9/1/06
150	6.0	Ongoing Action Plan Tracking/Follow-Up	84%	Wed 3/1/06	Mon 5/1/06	NA	Fri 12/28/07
151	6.1	OSHA Assessment Action Plan	100%	Mon 5/1/06	Mon 5/1/06	Fri 5/12/06	Fri 7/28/06
152	6.2	Material Handling & Rigging Plan (ATS 1948)	100%	Mon 5/15/06	Mon 3/5/07	Fri 12/1/06	Fri 4/27/07
153	6.3	Industrial Hygiene Plan (ATS 2823)	90%	Wed 3/1/06	Wed 5/24/06	NA	Thu 2/15/07
154	6.4	Electrical Safety Action Plan (ATS 2725)	90%	Mon 5/1/06	Mon 6/18/07	NA	Fri 12/28/07
155	6.5	Authority Having Jurisdiction (AHJ) Nationally Recognized Testing Laboratory (NTRL) Action Plan	50%	Mon 5/15/06	Mon 5/14/07	NA	Sun 9/30/07
156	6.6	Inadequate Control of Procedures (ATS 2935)	95%	Wed 3/1/06	Wed 7/12/06	NA	Sun 4/1/07
157	7.0	Evaluation of ISM Recommendations & Improvement Initiatives	77%	Wed 3/1/06	Mon 5/1/06	NA	Tue 2/13/07
158	7.1	Evaluation of ISM Recommendations/Opportunities for Improvement	82%	Wed 3/1/06	Mon 5/1/06	NA	Fri 12/29/06
159	7.1.1	Radiological Protection Plan Revision	100%	Wed 3/1/06	Tue 8/1/06	Mon 9/18/06	Fri 9/29/06
160	7.1.1.1	Revise the RPP scope statement to clarify the requirements of 10CFR835 for off-site radiological work	100%	Mon 5/15/06	Tue 8/1/06	Fri 9/15/06	Tue 9/19/06
161	7.1.1.2	Communicate RPP requirements to applicable Managers & Staff	100%	Wed 9/6/06	Wed 9/20/06	Mon 9/18/06	Fri 9/29/06
162	7.1.2	Radiological Awareness Report (RAR) Performance Expectations	100%	Wed 3/1/06	Tue 8/1/06	Fri 3/31/06	Thu 8/3/06
163	7.1.3	Waste Management Representative Support Services Evaluation	100%	Wed 3/1/06	Tue 8/1/06	Tue 4/25/06	Tue 9/26/06
164	7.1.4	Life Sciences Safety Culture/Performance Expectations	100%	Wed 3/1/06	Tue 8/1/06	Fri 3/31/06	Mon 8/14/06
165	7.1.5	Conduct of Operations Evaluation and Implementation	57%	Wed 3/1/06	Mon 5/1/06	NA	Mon 11/6/06
166	7.1.5.1	Facilities & Operations Directorate perform an extent of condition review to determine if conduct of operation noncompliance exists across operational facilities	85%	Mon 5/1/06	Mon 5/1/06	NA	Wed 7/12/06
167	7.1.5.2	Internal Audit and Oversight perform an effectiveness review of all corrective actions for the findings from the August 2003 IO Assessment	30%	Fri 12/1/06	Fri 12/1/06	NA	Fri 3/16/07
168	7.1.5.3	Review/Update existing F&O Directorate Conduct of Operations Program	100%	Wed 3/1/06	Thu 7/13/06	Wed 9/20/06	Wed 8/23/06
169	7.1.5.4	Provide awareness training to applicable F&O staff on conduct of operations principles, program revisions, and management expectations	25%	Thu 8/24/06	Thu 8/24/06	NA	Thu 9/21/06
170	7.1.6	Nuclear Safety Authorization / Readiness	90%	Mon 4/3/06	Mon 7/3/06	NA	Wed 11/29/06
171	7.1.6.1	Perform a verification of implementation and compliance with 10CFR830, Subpart B Nuclear Safety Management	100%	Mon 4/3/06	Mon 7/3/06	Fri 7/7/06	Thu 9/28/06

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ID	WBS	Task Name	% Complete	Actual Start	Baseline Start	Actual Finish	Baseline Finish
172	7.1.6.2	Perform an assessment of documented safety bases or pertinent exclusions/Exemptions	100%	Mon 8/14/06	Fri 9/29/06	Tue 10/31/06	Thu 11/9/06
173	7.1.6.3	Provide Unreviewed Safety Question determination training to managers and staff responsible for nuclear facilities	100%	Thu 7/6/06	Thu 7/6/06	Fri 7/28/06	Mon 7/10/06
174	7.1.6.4	Conduct an external assessment to independently verify Essential Safety System Functionality	20%	Mon 8/7/06	Fri 11/10/06	NA	Wed 11/29/06
175	7.1.6.5	Update the Natural Phenomena Hazard (NPH) Design Document	70%	Mon 7/10/06	Mon 9/11/06	NA	Fri 10/6/06
176	7.1.7	Operating Experience / Lessons Learned Initiatives	56%	Mon 5/15/06	Tue 5/30/06	NA	Fri 12/29/06
177	7.1.7.1	Expand distribution of published lessons learned communications to include Level 1 and Level 2 managers, ES&H Coordinators, WCMs, and Safety & Health Services personnel	100%	Mon 5/15/06	Tue 5/30/06	Wed 5/31/06	Fri 6/16/06
178	7.1.7.2	Commence tracking & trending feedback received on each published Lessons Learned Communication	100%	Mon 6/19/06	Mon 6/26/06	Fri 8/18/06	Wed 8/9/06
179	7.1.7.3	Initiate a Bi-Annual Lessons Learned Coordinators workshop to prompt feedback, evaluate, and improve the BNL LL program	10%	Wed 11/1/06	Wed 12/6/06	NA	Fri 12/29/06
180	7.1.8	Construction Safety Subject Area review/Update	100%	Mon 3/27/06	Mon 6/12/06	Tue 10/17/06	Thu 9/28/06
181	7.1.8.1	Perform a comprehensive review of the construction safety subject area, and incorporate improvements and new requirements	100%	Mon 3/27/06	Mon 6/12/06	Tue 10/17/06	Thu 9/28/06
182	7.2	Worker Safety & Health Program Implementation	59%	Mon 5/1/06	Mon 5/1/06	NA	Tue 2/13/07
183	7.2.1	Worker Safety & Health Rule Implementation	65%	Mon 5/1/06	Mon 5/1/06	NA	Mon 12/4/06
184	7.2.2	Development of Field Validation Criterion	100%	Mon 5/1/06	Mon 5/1/06	Mon 10/16/06	Mon 12/4/06
185	7.2.3	Investigation/Causal Analysis and Corrective Actions	50%	Mon 5/1/06	Mon 5/1/06	NA	Mon 12/4/06
186	7.2.4	Worker Safety & Health Elements in Place & Program Expectations Communicated	0%	NA	Tue 12/5/06	NA	Tue 2/13/07
187	7.3	Safety Improvement Initiatives	87%	Fri 3/31/06	Wed 5/3/06	NA	Fri 12/29/06
188	7.3.1	Excellence in ESS&H Strategic Focus Area	100%	Tue 5/9/06	Tue 5/9/06	Fri 11/17/06	Sat 9/30/06
189	7.3.2	Safety Observation Training for Managers and Supervisors	100%	Tue 5/9/06	Tue 5/9/06	Mon 10/23/06	Thu 11/2/06
190	7.3.3	OHSAS Registration Phase 3 Completion	100%	Fri 3/31/06	Wed 5/3/06	Fri 12/1/06	Fri 12/29/06
191	7.3.4	Employee Concerns Program Evaluation	0%	NA	Wed 2/21/07	NA	Wed 2/28/07
192	7.3.5	Executive Management Training Program	100%	Tue 8/1/06	Tue 8/1/06	Mon 12/4/06	Mon 1/1/07
193	7.3.6	Electronic Delivery of Experimental Safety Review Forms Evaluation	0%	NA	Tue 1/2/07	NA	Tue 4/10/07
194	7.3.7	Effectiveness of Off-Site Integrated Safety Management	0%	NA	Mon 1/1/07	NA	Thu 3/1/07
195	7.3.8	Institutional Safety Committees Reporting Structure Review	100%	Fri 8/18/06	Mon 8/21/06	Wed 11/15/06	Fri 10/27/06
196	7.3.9	Feedback & Improvement, and WP&C Follow-Up Review	100%	Fri 9/15/06	Fri 9/1/06	Fri 10/13/06	Fri 10/27/06
197	8.0	Project Management and Support	39%	Mon 5/1/06	Mon 5/15/06	NA	Tue 8/19/08
198	8.1	Consulting Services & Subject Matter Experts	40%	Mon 5/1/06	Mon 10/2/06	NA	Fri 7/27/07
199	8.2	Administration and ISM Workshops	40%	Mon 5/1/06	Mon 5/15/06	NA	Tue 9/18/07
200	8.3	ISM/Safety Improvement Project Closeout	0%	NA	Wed 8/6/08	NA	Tue 8/19/08